Abstract

A person's skin is protected from percutaneous absorption of lipophilic or semi-polar contaminant chemicals by applying to the skin, before the skin is wetted with water, a plural-constituent solvent system having an average molecular weight greater than or equal to 350 and including at least one solvent in which the contaminant chemicals are soluble. The solvent system may be applied to the skin before exposure to serve as a barrier, or may be applied to the skin or other surface after exposure to serve as a cleanser. The solvent system may include one or more emulsifiers and/or reactive chemical deactivation agents, and/or organic pH modifiers, and/or UV blockers, and/or insect repellents. Oil-based and glycol-based solvent systems are disclosed, each having at least two solvents which may have different solubility ranges. The solvent system includes no water, emollients or detergents and all constituents are skin-safe.